

CLAIMS

1. An electric double layer capacitor comprising an element formed by disposing a separator between a positive electrode and a negative electrode made of carbonaceous electrodes, and a non-aqueous electrolyte impregnated to the element, wherein said separator comprises a sheet having a thickness of from 10 to 100 μm and a porosity of from 50 to 90%, and a netted spacer having a thickness of from 10 to 80 μm , a numerical aperture of from 30 to 80% and an opening of from 50 to 350 mesh, laminated one on the other.
2. The electric double layer capacitor according to Claim 1, wherein the netted spacer is a net made of fibers of a polyester, a polyimide, a fluorine-containing polyolefin or a polyphenylene sulfide.
3. The electric double layer capacitor according to Claim 1 ~~or 2~~, wherein the netted spacer is a net made of fibers having a fiber diameter of from 10 to 80 μm .
4. An electric double layer capacitor comprising an element formed by disposing a separator between a positive electrode and a negative electrode made of carbonaceous electrodes, and a non-aqueous electrolyte impregnated to the element, wherein said separator comprises a sheet having a thickness of from 10 to 100 μm and a porosity of from 50 to 90%, and a spacer layer formed of particles having an average particle size of from 0.1 to 20 μm , and having a thickness of from 10 to

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80 μm and a porosity of from 50 to 85%, laminated one on the other.

5. The electric double layer capacitor according to
 a Claim 1, ~~2, 3 or 4~~, wherein the sheet is made of
 5 cellulose paper.

6. The electric double layer capacitor according to
 Claim 5, wherein the cellulose paper is paper prepared to
 contain at least 50 wt% of fibers obtained by beating
 regenerated cellulose fibers.

10 7. The electric double layer capacitor according to
 a Claim 1, ~~2, 3, 4, 5 or 6~~, wherein the carbonaceous
 electrodes comprise a carbon material having a specific
 surface area of 100 to 2500 m^2/g and an organic binder.

8. The electric double layer capacitor according to
 10 a Claim 1, ~~2, 3, 4, 5, 6 or 7~~, wherein the non-aqueous
 electrolyte comprises a solute which is a salt comprising
 a quaternary onium cation represented by $\text{R}^1\text{R}^2\text{R}^3\text{R}^4\text{N}^+$ or
 $\text{R}^1\text{R}^2\text{R}^3\text{R}^4\text{P}^+$, wherein each of R^1 , R^2 , R^3 and R^4 which are
 independent of one another, is a C_{1-6} alkyl group, and an
 20 anion of BF_4^- , PF_6^- , CF_3SO_3^- , AsF_6^- , $\text{N}(\text{SO}_2\text{CF}_3)_2^-$ or ClO_4^- , and
 a solvent which is at least one member selected from the
 group consisting of propylene carbonate, ethylene
 carbonate, dimethyl carbonate, diethyl carbonate,
 methylethyl carbonate, acetonitrile, sulfolane and
 25 methylsulfolane.

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